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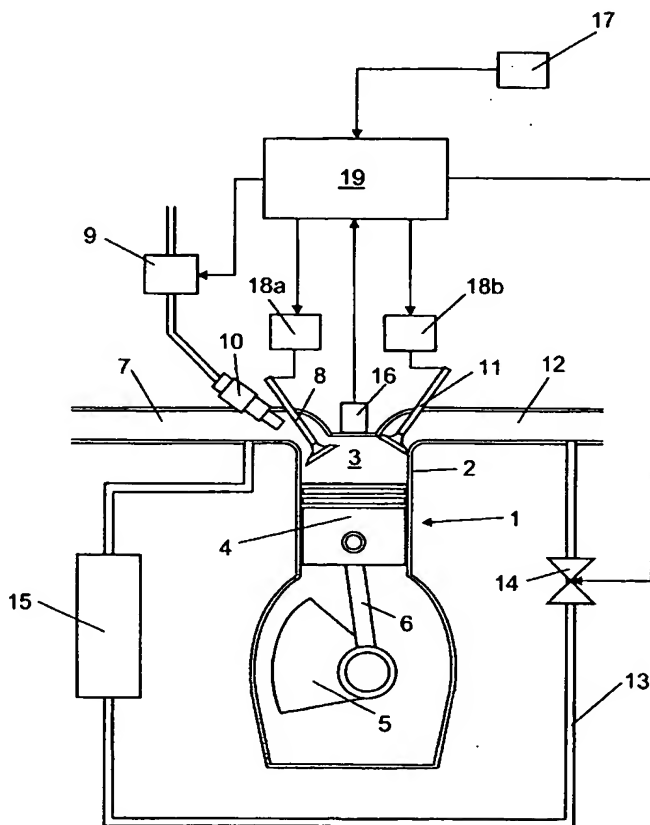
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(54) Title: ARRANGEMENT AND METHOD FOR CONTROLLING A COMBUSTION ENGINE



(57) Abstract: The present invention relates to an arrangement and a method for controlling a combustion engine (1), e.g. of the type called HCCI engine. The arrangement comprises a control unit (19) adapted to controlling the self-ignition of the fuel mixture towards an optimum crankshaft angle (cad_{opt}) within a load range (L_{tot}). Said load range (L_{tot}) can be divided into at least two subranges (L_1 , L_{11}) and the control unit (19) is adapted to controlling the self-ignition of the fuel mixture towards an optimum crankshaft angle (cad_{opt}) within a first subrange (L_1) by means of a strategy (I) which entails a variable amount of hot exhaust gases being supplied to or retained in the combustion chamber (3), and within a second subrange (L_{11}) by means of another strategy (II) which entails the effective compression ratio (c) in the cylinder (2) being varied.

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